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Dear Readers,

I wish you all a happy and healthier New Year 2021. Probably, after some time, we'll name it a "Vax-Year". There appeared safe and effective vaccines, which bring hope in the immunization against SARS-CoV-2. A hope for coming back to the future, one could say. I believe, better days are just around the corner.

Before I summarize the present JCB edition, I would like to gladly highlight the review on the role of brachytherapy in organ sparing treatment for bladder cancer by Elzbieta Van der Steen-Banasik published in the previous JCB issue. The paper met with an extraordinary interest and readers' feedback, especially in our social media channels. I strongly believe that this important publication should act as an inception in our minds, resulting in a significat increase in the number of bladders spared.

The JCB 1/2021 issue contains eight clinical papers, including three physics contributions, two case reports, and one review. It opens with two different Spanish works focused on prostate cancer. In the first one, the authors presented the results of a prospective multicenter study on five-year quality of life in patients with high-risk localized prostate cancer treated with EBRT alone vs. EBRT with HDR-BT boost. In the second Spanish paper, the authors assessed toxicity, PSA kinetics, and prostate cancer control after salvage HDR-BT in patients previously treated with a single fraction of 19 Gy. In this paper, the novel concept of salvage 2 × 12 Gy appeared feasible and well-tolerated.

The third clinical manuscript focuses on a dosimetric comparison of CT-guided ^{125}I seed implantation assisted with and without 3D printing non-coplanar template in locally recurrent rectal cancer. In a propensity-score matching study, Lu Wang *et al*. (China) indicated that such an approach improves the accuracy of seed implantation by increasing the tumor dose and reducing the number of dose cold spots.

The next three clinical investigations are on gynecological malignancies. Manon Kissel *et al*. (France) demonstrated that Venezia^{TM} applicator with oblique needles improves CTV coverage in distal parametrial tumor residue and allows to maintain an acceptable dose to OARs. The Japanese group from Tsukuba investigated BT technique selection's suitability based on pre-BT MRI findings in cervical cancer by evaluating DVH parameters. Cases of large tumors with inadequate response to concurrent chemoradiotherapy, asymmetrical tumors, severe vaginal invasion, extensive parametrial invasion, or corpus invasion can benefit the most. In turn, the Chinese group from Beijing investigated the accuracy and dosimetric parameters comparison of 3D-printed non-coplanar templates-assisted CT-guided ^{125}I seed ablative BT in lateral pelvic recurrence of gynecological carcinomas. They proved that their method was safe and feasible, and all complications were mild.

Saeed Karimi *et al*. (Iran) submitted a systematic review of efficacy and complications after ^{125}I, ^{103}Pd, and ^{106}Ru plaque BT for iris and iridociliary melanoma. In conclusion, they stated that in a dose range from 84 to 150 Gy, an increase in dose may increase the risk of complications, while the tumor control rate does not change.

The last clinical investigation is from the USA. Emile Gogineni *et al*. delivers another prove on CT-based flap applicator BT, which is a valid treatment option for patients with non-melanoma skin cancer of the face. The modality offers high local control rates with acceptable cosmetic outcomes and low toxicity rates – the message should reach our friendly surgeons, dermatologists, and general practitioners.

Consecutive three physical contributions focus on the prostate (2) and gyne cancers (1). Frida Dohlmar *et al*. presented an audit results of HDR prostate BT treatment planning at six Swedish clinics. They revealed that the dose constraints for OARs show a more considerable variation than the compared treatment plans are reflecting. At least 10 Gy was administered (a total of 102 Gy EQD_2). It is in the upper part of prescription doses published in the GEC/ESTRO recommendations. In a retrospective study, an Australian group demonstrated significant differences in accumulated rectal dose prediction using different image registration methods. They underlined that each method has its limitations, and when used with real-time HDR-BT dose planning, awareness of these limitations is essential. Reza Mohammadi and his international colleagues (Iran, Armenia, Hungary) assessed a 3D-printed personalized multi-channel cylinder applicator's (MCCA) dosimetric characteristics. The dosimetric results and mechanical accuracy showed that high-temperature resin with the 3D-printing technique could be used to prepare patient-specific MCCA in BT.

This issue contains two case reports. The first one by Keisei Okamoto (Japan) presents the successful cure of prostate cancer with nodular bladder invasion (stage T4N1) after LDR-BT seminal vesicle implantation in combination with EBRT (biologically effective dose ≥ 220 Gy). The second paper by Mostafa Farzin *et al*. (Tehran, Iran) shows a novel method of combined EBRT and BT to treat extensive advanced scalp squamous cell carcinoma.

Finally, a review paper present clinical purposes and future requirements for brachytherapy physical phantoms developed over the previous 20 years. Sarah Wilby *et al*. (Portsmouth, UK) summarized that studying phantom design provides insight into how brachytherapy practice has changed with time, and demonstrates bespoke and broad nature of the treatments offered.

Enjoy reading, enjoy the 2021, and consider the vaccines for yourself, your patients, and relatives. And feel free to submit your research results to the "Journal of Contemporary Brachytherapy". We are here to present your work to the world!

Yours sincerely,
Adam Chicheł, MD, PhD
Editor-in-Chief
Journal of Contemporary Brachytherapy